

ABSTRACT

A digital portable terminal is utilized to obtain high quality images without error accumulation using plus and/or minus rounding of images. Such a digital portable terminal comprises an antenna for sending digital signals; an input device for acquiring image information; a frame memory for recording a decoded image of a reference frame; a block matching section for estimating motion vectors and synthesizing a predicted image of a current frame by performing motion compensation between the decoded image of the reference frame and an input image of the current frame; a DCT converter for performing DCT conversion of a difference between the input image of the current frame and the predicted image of the current frame to obtain DCT coefficients; a quantizer for quantizing the DCT coefficients; and a multiplexer for multiplexing information related to quantized DCT coefficients, the motion vectors and a rounding method used for pixel value interpolation in said motion compensation. The block matching section includes a rounding method determination unit which decides whether a positive rounding method or a negative rounding method is used for pixel value interpolation in said motion compensation, and the synthesizing of the predicted image is performed using the decided rounding method and the motion vectors.